9/498789

WEST Search History

DATE: Thursday, July 10, 2003

Set Name side by sid	Query	Hit Count	Set Name result set
	DB=PGPB,JPAB,EPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR		
L6	(atm or (automatic$ adj teller$ adj machine$) or (financ$ with transaction)) and (vicinity or adjacent or proximity) and camera and @pd<=19971127	1	L6
	DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
L5	L4 and l1	4	L5
L4	((705/43)!.CCLS.)	133	L4
L3	((L705/43)!.CCLS.)	0	L3
L2	((705/37)!.CCLS.)	335	L2
L1	(atm or (automatic$ adj teller$ adj machine$) or (financ$ with transaction)) and (vicinity or adjacent or proximity) and camera and @ad<=19971127	562	L1

END OF SEARCH HISTORY

L34	l32 not L33	17	L34
L33	L31 and l32	3	L33
L32	(atm or (automatic$ adj teller$ adj machine)) and ((different or multiple or many) adj2 (merchant$ or bank$ or retail$) with access$) and @ad<=19971127	20	L32
L31	L30 and l27	23	L31
L30	((2$ or two$) with (ATM or (automatic adj teller adj machine))) and ((different or multiple or many) adj2 (merchant$ or bank$ or retail$)) and @ad<=19971127	56	L30
L29	L28 and ((2$ or two$) with (ATM or (automatic adj teller adj machine)))	23	L29
L28	L27 and l24	74	L28

L27	((235/379 |235/380 |235/381)!.CCLS.)	3164	L27
L26	L25 and l24	2	L26
L25	((902/30)!.CCLS.)	64	L25
L24	(atm or (automatic$ adj teller$ adj machine)) and ((different or multiple or many) adj2 (merchant$ or bank$ or retail$)) and @ad<=19971127	232	L24

End of Result Set

Generate Collection | Print

L6: Entry 1 of 1 File: TDBD Sep 1, 1989

TDB-ACC-NO: NA8909113

DISCLOSURE TITLE: Manipulation Sensor

PUBLICATION-DATA:
IBM Technical Disclosure Bulletin, September 1989, US

VOLUME NUMBER: 32
ISSUE NUMBER: 4A
PAGE NUMBER: 113

PUBLICATION-DATE: September 1, 1989 (19890901)

CROSS REFERENCE: 0018-8689-32-4A-113

DISCLOSURE TEXT:

- The sensor described in this article detects manipulations on recording monitoring cameras, producing a signal that is electrically evaluated. - The optoelectronic sensor used for this purpose is installed adjacent to the front lens of a monitoring camera. If the objective is shaded by being covered or sprayed, an electrical signal is produced. The described sensor may be used, for example, in an automatic teller machine with a built-in monitoring camera which records transactions on the teller machine. If the recording objective is shaded, the electrical signal produced in response blocks any transactions of the teller machine, in particular cash transactions.

Generate Collection | Print

A

L5: Entry 1 of 4 File: USPT Mar 14, 2000

US-PAT-NO: 6038553
DOCUMENT-IDENTIFIER: US 6038553 A

TITLE: Self service method of and system for cashing checks

DATE-ISSUED: March 14, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hyde, Jr.; Thomas A.	Dallas	TX		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Affiliated Computer Services, Inc.	Dallas	TX			02

APPL-NO: 08/ 933413 [PALM]
DATE FILED: September 19, 1997

INT-CL: [07] G06 F 17/60

US-CL-ISSUED: 705/45; 705/43, 235/379, 382/137, 382/138, 382/139, 382/140
US-CL-CURRENT: 705/45; 235/379, 382/137, 382/138, 382/139, 382/140, 705/43

FIELD-OF-SEARCH: 705/1, 705/30, 705/35, 705/40, 705/45, 705/39, 235/380, 235/379, 235/375, 236/379, 364/400, 902/3, 902/5

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected | Search ALL

	PAT-NO	ISSUE DATE	PATENTEE-NAME	US-CL
☐	3588449	June 1971	Paterson	235/61.7
☐	3705384	December 1972	Wahlberg	340/149
☐	3784790	January 1974	Hatanaka et al.	235/61.7
☐	3798603	March 1974	Wahlberg	340/149
☐	3876864	April 1975	Clark et al.	235/61.7B
☐	3896266	July 1975	Waterbury	179/1
☐	3943335	March 1976	Kinker et al.	235/61.7
☐	4109238	August 1978	Creekmore	340/149A
☐	4317957	March 1982	Sendrow	178/22.08
☐	4321672	March 1982	Braun et al.	364/408
☐	4580040	April 1986	Granzow et al.	235/379
☐	4617457	October 1986	Granzow et al.	235/379
☐	4993068	February 1991	Piosenka et al.	380/23
☐	5023782	June 1991	Lutz et al.	364/405
☐	5220501	June 1993	Lawlor et al.	364/408
☐	5265008	November 1993	Benton et al.	364/408
☐	5367561	November 1994	Adler et al.	379/93
☐	5386103	January 1995	DeBan et al.	235/379
☐	5592377	January 1997	Lipkin	395/242
☐	5751841	May 1998	Leong et al.	382/137
☐	5751842	May 1998	Riach et al.	382/137
☐	5832463	November 1998	Funk	705/35
☐	5832464	November 1998	Houvener et al.	705/45
☐	5890141	March 1999	Carney et al.	705/45
☐	5897625	April 1999	Gustin et al.	705/43
☐	5898155	April 1999	Imai et al.	235/379
☐	5898157	April 1999	Mangili et al.	235/380
☐	5925865	July 1999	Steger	235/379
☐	5940811	August 1999	Norris	705/38
☐	5940844	August 1999	Cahill et al.	707/526

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
9835298	February 1998	WO	

ART-UNIT: 275

PRIMARY-EXAMINER: Stamber; Eric W.

ASSISTANT-EXAMINER: Campa; John

ATTY-AGENT-FIRM: Hammond; Herbert J.

ABSTRACT:

An automated self service method of and system for cashing checks, typically without human intervention. The system includes a check cashing database that contains customer records for registered customers. A plurality of administration modules are provided with which individuals may register themselves and their checks and communicate with customer service representatives. A check cashing server communicates with the check cashing transaction modules. The check cashing server receives check cashing requests from the check cashing transaction modules. The check cashing server processes check requests by comparing information in the request with criteria derived from the check cashing database. If the check request satisfies the criteria, the check cashing server, without human action or intervention, instructs the check cashing transaction module to dispense cash to the customer.

24 Claims, 11 Drawing figures

DOCUMENT-IDENTIFIER: US 6038553 A
TITLE: Self service method of and system for cashing checks

Application Filing Date (1):
19970919

Brief Summary Text (12):
The system includes a plurality of administration modules with which individuals may register themselves and their checks and communicate with customer service representatives. Preferably, the administration modules are implemented in free standing administration terminals. Each administration module includes a display for displaying information and prompts to a user, and user input devices, including a keypad and/or touch screen and a digital scanner, for receiving information from the user. Each administration module also includes a video or digital camera for capturing an image of the user and for use in video call switching. A telephone is provided for enabling the user to speak to a customer service representative. A printer is provided for printing registration forms, check cashing member identification number information, transaction records, and the like.

Brief Summary Text (14):
The system includes a plurality of check cashing transaction modules with which registered customers may cash registered checks. The check cashing transaction modules are preferably implemented in free standing check cashing modules separate from the administration modules. Each check cashing transaction module includes a display for displaying information and prompts to a customer, and user input devices, including a keypad and/or touch screen, for receiving information from the customer. Each check cashing transaction module also includes a video or digital camera for capturing an image of the customer. The check cashing transaction module includes a check receiver that holds the check during processing. The check receiver includes a check scanner and a MICR reader. The check cashing transaction module includes optical character recognition (OCR) software. The check cashing transaction module includes a cash and coin dispenser. A printer is provided for transaction receipts and the like.

Detailed Description Text (6):
The system includes a plurality of transaction modules. Transaction modules are preferably implemented in transaction terminals 23 of the type illustrated with respect to FIG. 3. Preferably, transaction modules 23 are implemented in terminals that are separate from the terminals of administration modules 13, although both could be implemented in the same physical piece of equipment. Typically, the terminal of administration terminals 13 and transaction terminals 23 would be located near each other, but physical proximity is not required, and the number of transaction terminals 23 supported by system 11 does not need to be the same as the number of administration terminals 13.

Detailed Description Text (7):
As will be described in detail hereinafter, the actual check cashing transactions according to the present invention are performed through transaction modules 23. Transaction modules 23 communicate with check cashing server 19. In the preferred embodiment, transaction modules 23 are implemented in modified automatic teller machines (ATMs) and in an architecture of the type described in copending application Ser. No. 08/934,446, filed Sep. 19, 1997. In the preferred embodiment, image data is communicated from each transaction module 23 directly to check cashing server 19 directly through FTP interfaces and character data is communicated back and forth between transaction modules 23 and transaction server 19 via frame relay

connections through a network system 25.

Detailed Description Text (10):
Referring now to FIG. 2, there is shown a block diagram of a administration module 13 according to the present invention. Administration module 13 includes a microprocessor controller 29 that runs a suitable operating system and appropriate device drivers, as well as administration software that will be described in detail hereinafter. The user interface to administration module 29 includes a touch screen display 31 and a keypad 33. In the manner well known to those skilled in the art, menus and selection choices are presented to the user on display screen 31 and user inputs selections and other data are received by controller 29 by touch screen and/or keypad entry. Administration module 13 includes a video or digital camera 35 for capturing an image of a customer using administration module 13. A telephone 37 is provided for enabling a customer to have a fully interactive voice and video conversation with a customer service representative.

Detailed Description Text (12):
Referring now to FIG. 3, there is shown a transaction module 23. Transaction module 23 is similar to administration module 13 in that it includes a microprocessor controller 43, a touch screen display 45, a keypad 47, a video or digital camera 49, and a printer 51. Additionally, transaction module 23 includes a check receptacle that includes a combination OCR capable check scanner/MICR 53. The check receptacle is adapted to hold the check during the transaction and to scan and perform OCR on both sides of the check and read the MICR line of the check. If the check is cashed during the transaction, the check receptacle deposits the check into a vault (not shown). If the check is not cashed, the check receptacle returns the check to the customer. If the check is cashed, transaction module 23 dispenses the amount of the check, less a service charge, to the customer with the cash/coin dispenser 55. Transaction module 23 prints receipts and other transaction records with printer 51.

Current US Cross Reference Classification (6):
705/43

Generate Collection | Print

L5: Entry 2 of 4 File: USPT Jan 4, 2000

US-PAT-NO: 6012048
DOCUMENT-IDENTIFIER: US 6012048 A

TITLE: Automated banking system for dispensing money orders, wire transfer and bill payment

DATE-ISSUED: January 4, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gustin; Robin Haley	Chicago	IL		
Livingston; Troy W.	Northbrook	IL		
Park; Namsoo	Schaumburg	IL		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Capital Security Systems, Inc.	Chicago	IL			02

APPL-NO: 08/ 866140 [PALM]
DATE FILED: May 30, 1997

INT-CL: [06] G07F 17/60

US-CL-ISSUED: 705/39; 109/24.1, 235/379, 705/43, 705/44
US-CL-CURRENT: 705/39; 109/24.1, 235/379, 705/43, 705/44

FIELD-OF-SEARCH: 705/30, 705/33, 705/34, 705/35, 705/39, 705/40, 705/41, 705/42, 705/43, 705/45, 235/379, 235/380, 382/112, 382/119, 382/135, 382/137, 382/138, 382/139, 382/140, 109/24.1, 194/206, 379/93.12

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected | Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	3648020	March 1972	Tateisi et al.	705/43
☐	3943335	March 1976	Kinker et al.	235/379
☐	4023013	May 1977	Kinker	235/379
☐	4085687	April 1978	Beck et al.	109/24.1
☐	4134537	January 1979	Glaser et al.	235/379
☐	4179723	December 1979	Spencer	361/687
☐	4430562	February 1984	Lundblad	235/379
☐	4434359	February 1984	Watanabe	235/379

☐	4497261	Februl) 1985	Ferris et al.	109/2
☐	4516015	May 1985	Uchida et al.	235/379
☐	4585928	April 1986	Watanabe	235/379
☐	4600828	July 1986	Nogami et al.	235/379
☐	4617457	October 1986	Granzow et al.	235/379
☐	4628532	December 1986	Stone et al.	382/197
☐	4634845	January 1987	Hale et al.	235/380
☐	4649832	March 1987	Hain et al.	109/24.1
☐	4680728	July 1987	Davis, II et al.	345/141
☐	4689478	August 1987	Hale et al.	235/380
☐	4701747	October 1987	Isherwood et al.	341/24
☐	4719338	January 1988	Avery et al.	235/380
☐	4729128	March 1988	Grimes et al.	382/116
☐	4733765	March 1988	Watanabe	194/206
☐	4743743	May 1988	Fukatsu	235/379
☐	4754126	June 1988	Caldwell	235/379
☐	4926173	May 1990	Frielink	341/22
☐	4936564	June 1990	Hain	271/3.19
☐	4989520	February 1991	Hain	109/24.1
☐	4997176	March 1991	Hain	271/180
☐	5013896	May 1991	Ono et al.	235/381
☐	5018720	May 1991	Whittaker	271/272
☐	5099423	March 1992	Graef et al.	705/30
☐	5136144	August 1992	Swinton et al.	235/379
☐	5233547	August 1993	Kapp et al.	364/705.02
☐	5238143	August 1993	Crighton	221/7
☐	5271613	December 1993	Hain	271/3.12
☐	5297030	March 1994	Vassigh et al.	705/25
☐	5335484	August 1994	Hain	53/582
☐	5386104	January 1995	Sime	235/379
☐	5389773	February 1995	Coutts et al.	705/43
☐	5408417	April 1995	Wilder	705/5
☐	5412189	May 1995	Cragun	235/379
☐	5428684	June 1995	Akiyama et al.	380/25
☐	5459957	October 1995	Winer	42/70.11
☐	5465206	November 1995	Hilt et al.	705/40
☐	5546523	August 1996	Gatto	345/352
☐	5650604	July 1997	Marcous et al.	235/379

☐	5686713	Novemb 1997	Rivera	235/380
☐	5751842	May 1998	Riach et al.	382/137

OTHER PUBLICATIONS

"Once-Reserved Fed Leads the Charge for Change", Checks and Checking, Bank Technology News, pp. 14-15, Apr. 1996.
R. Weatherington, "EBT Exploding, But Savings May be Myth," Checklist, pp. 12, 14, 16, Winter 1996.
M. Robertson, "Stem the Tide of Internal Theft," Checklist, pp. 24, 26, Spring 1996.

H. Shyne, "ATM Surcharges Target of Controlling Acts, " Checklist, p. 32, Summer 1996.
"New ATM Fees Have Spread Fast," Money, p. 56, Dec. 1996.
J. Schmeltzer, "Currency Exchanges Move Into New Territory," Sec. 5, Chicago Tribune, Dec.15, 1996.
"More ATMs Levy Fees on Customers From Other Banks," Wall Street Journal, Section B, p. 11B, Oct. 4, 1996.
Iversen, W.R., "How ATMs Fit Into An On-Line World", Financial Service On-Line, p. 39-48, Sep./Oct. 1996.

ART-UNIT: 271

PRIMARY-EXAMINER: Tkacs; Stephen R.

ATTY-AGENT-FIRM: Fletcher, Even, Tabin & Flannery

ABSTRACT:

An automated banking system for wire transfer of funds is provided with a machine where the user has a card to identify the user as being qualified to use the banking system. The user must know and be provided with the transferee's bank number and the transferee's account number. Preferably, the user knows the routing number and the user inputs the routing number at the machine which is preferably an ATM machine that accepts and dispenses cash. The user may pay for the wire transfer at the machine by cash, a credit card, debit card, smart card or a withdrawal from the user's account. The machine has card readers and means for writing down on a card the amount paid therefrom for this wire transaction. The user is assured by the verification that the wire transfer is to the proper receiving account.

19 Claims, 88 Drawing figures

9/498784

WEST Search Histo[illegible]

DATE: Thursday, July 10, 2003

Set Name side by side	Query	Hit Count	Set Name result set
	DB=PGPB,JPAB,EPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR		
L8	(atm or (automatic$ adj teller$ adj machine)) and ((different or multiple or many) adj2 (merchant$ or bank$ or retail$)) and @pd<=19971127	11	L8
	DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
~~L7~~	L6 and l2	71	L7
L6	(atm or (automatic$ adj teller$ adj machine)) and ((different or multiple or many) adj2 (merchant$ or bank$ or retail$)) and @ad<=19971127	232	L6
L5	L2 and ((different or multiple or many) adj2 (merchant$ or bank$ or retail$))	233	L5
L4	L3 and ((different or multiple or many) adj2 (merchant$ or bank$ or retail$))	71	L4
L3	L2 and l1	394	L3
L2	((235/379 |235/380)!.CCLS.)	2805	L2
L1	(atm or (automatic$ adj teller$ adj machine)) and (merchant or bank or retail) and @ad<=19971127	2544	L1

END OF SEARCH HISTORY

Terms	Documents
(atm or (automatic$ adj teller$ adj machine)) and ((different or multiple or many) adj2 (merchant$ or bank$ or retail$)) and @pd<=19971127	11

Display Format: - Change Format

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Search Results - Record(s) 11 through 11 of 11 returned.

☐ 11. Document ID: EP 510798 A2 DE 69204202 E EP 510798 A3 EP 510798 B1 US 5330316 A

L8: Entry 11 of 11 File: DWPI Oct 28, 1992

DERWENT-ACC-NO: 1992-359008
DERWENT-WEEK: 199244

TITLE: Sheet handle for bank statement in ATM - uses feeder to stack individual statement sheets and then air of endless belts to move stack to deliver stack to exit

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Clip Img | Image

Generate Collection | Print

Terms	Documents
(atm or (automatic$ adj teller$ adj machine)) and ((different or multiple or many) adj2 (merchant$ or bank$ or retail$)) and @pd<=19971127	11

Display Format: - Change Format

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CLASS 382 IMAGE ANALYSIS

100 **APPLICATIONS**
101 . Mail processing
102 .. ZIP code
103 . Target tracking or detecting
104 . Vehicle or traffic control (e.g., auto, bus, or train)
105 .. License plate
106 . Range or distance measuring
107 . Motion or velocity measuring
108 . Surface texture or roughness measuring
109 . Seismic or geological sample measuring
110 . Animal, plant, or food inspection
111 . Textiles or clothing
112 . Document or print quality inspection (e.g., newspaper, photographs, etc.)
113 . Reading maps, graphs, drawings, or schematics
114 . Reading aids for the visually impaired
115 . Personnel identification (e.g., biometrics)
116 .. Using a combination of features (e.g., signature and fingerprint)
117 .. Using a characteristic of the eye
118 .. Using a facial characteristic
119 .. Using a signature
120 ... Sensing pressure together with speed or acceleration
121 ... Sensing pressure only
122 ... Sensing speed or acceleration only
123 ... Sensing geometrical properties
124 .. Using a fingerprint
125 ... Extracting minutia such as ridge endings and bifurcations
126 ... With a guiding mechanism for positioning finger
127 ... With a prism
128 . Biomedical applications
129 .. DNA or RNA pattern reading
130 .. Producing difference image (e.g., angiography)
131 .. Tomography (e.g., CAT scanner)
132 .. X-ray film analysis (e.g., radiography)
133 .. Cell analysis, classification, or counting
134 ... Blood cells
135 . Reading paper currency
136 . Reading coins
137 . Reading bank checks (e.g., documents bearing E-13B type characters)
138 .. Reading monetary amount
139 .. Reading MICR data

140 ... Including a optical imager or reader
141 . Manufacturing or product inspection
142 .. Bottle inspection
143 .. Inspection of packaged consumer goods
144 .. Mask inspection (e.g., semiconductor photomask)
145 .. Inspection of semiconductor device or printed circuit board
146 ... Measuring external leads
147 ... Inspecting printed circuit boards
148 ... At plural magnifications or resolutions
149 ... Fault or defect detection
150 .... Faulty soldering
151 ... Alignment, registration, or position determination
152 .. Tool, workpiece, or mechanical component inspection
153 . Robotics
154 . 3-D or stereo imaging analysis
155 **LEARNING SYSTEMS**
156 . Neural networks
157 .. Network learning techniques (e.g., back propagation)
158 .. Network structures
159 . Trainable classifiers or pattern recognizers (e.g., adaline, perceptron)
160 .. Generating a standard by statistical analysis
161 .. Alphanumerics
162 **COLOR IMAGE PROCESSING**
163 . Drop-out color in image (i.e., color to be removed)
164 . Image segmentation using color
165 . Pattern recognition or classification using color
166 . Compression of color images
167 . Color correction
168 **HISTOGRAM PROCESSING**
169 . With a gray-level transformation (e.g., uniform density transformation)
170 . With pattern recognition or classification
171 . For segmenting an image
172 . For setting a threshold
173 **IMAGE SEGMENTATION**
174 . Using projections (i.e., shadow or profile of characters)
175 . Separating document regions using preprinted guides or markings
176 . Distinguishing text from other regions
177 . Segmenting individual characters or words
178 .. Separating touching or overlapping characters
179 .. Segmenting hand-printed characters
180 . Region labeling (e.g., page description language)

181 **PATTERN RECOGNITION**

182 . Limited to specially coded, human-readable characters

183 .. Characters formed entirely of parallel bars (e.g., CMC-7)

184 .. With separate timing or alignment marks

185 . Ideographic characters (e.g., Japanese or Chinese)

186 . Unconstrained handwriting (e.g., cursive)

187 . On-line recognition of handwritten characters

188 .. Writing on ordinary surface (i.e., electronics are in pen)

189 .. With a display

190 . Feature extraction

191 .. Multispectral features (e.g., frequency, phase)

192 .. Feature counting

193 ... Counting intersections of scanning lines with pattern

194 ... Counting individual pixels or pixel patterns

195 .. Local or regional features

196 ... Slice codes

197 ... Directional codes and vectors (e.g., Freeman chains, compasslike codes)

198 .... Extracted from alphanumeric characters

199 ... Pattern boundary and edge measurements

200 .... Measurements made on alphanumeric characters

201 ... Point features (e.g., spatial coordinate descriptors)

202 ... Linear stroke analysis (e.g., limited to straight lines)

203 ... Shape and form analysis

204 .... Topological properties (e.g., number of holes in a pattern, connectivity, etc.)

205 ... Local neighborhood operations (e.g., 3x3 kernel, window, or matrix operator)

206 .. Global features (e.g., measurements on image as a whole, such as area, projections, etc.)

207 .. Waveform analysis

208 ... With a tapped delay line

209 . Template matching (e.g., specific devices that determine the best match)

210 .. Spatial filtering (e.g., holography)

211 ... With electrically controlled light modulator or filter

212 .. Nonholographic optical mask or transparency

213 ... Using both positive and negative masks or transparencies

214 ... With a display

215 .. Using dynamic programming or elastic templates (e.g., warping)

216 .. At multiple image orientations or positions

217 .. Electronic template

218 ... Comparator
219 .... Determining both similarities and differences
220 .... Calculating weighted similarity or difference (e.g., don`t-care areas)
221 .... Counting difference pixels
222 ..... Using an Exclusive-OR gate
223 ... Resistor matrix
224 . Classification
225 .. Cluster analysis
226 .. Sequential decision process (e.g., decision tree structure)
227 ... With a multilevel classifier
228 .. Statistical decision process
229 . Context analysis or word recognition (e.g., character string)
230 .. Trigrams or digrams
231 .. Checking spelling for recognition
232 **IMAGE COMPRESSION OR CODING**
233 . Including details of decompression
234 . Parallel coding architecture
235 . Substantial processing of image in compressed form
236 . Interframe coding (e.g., difference or motion detection)
237 . Gray level to binary coding
238 . Predictive coding
239 . Adaptive coding (i.e., changes based upon history, activity, busyness, etc.)
240 . Pyramid, hierarchy, or tree structure
241 . Polygonal approximation
242 . Contour or chain coding (e.g., Bezier)
243 . Shape, icon, or feature-based compression
244 . Lossless compression
245 .. Run-length coding
246 .. Huffman or variable-length coding
247 .. Arithmetic coding
248 . Transform coding
249 .. Fractal
250 .. Discrete cosine or sine transform
251 . Quantization
252 .. Error diffusion or dispersion
253 .. Vector quantization
254 **IMAGE ENHANCEMENT OR RESTORATION**
255 . Focus measuring or adjusting (e.g., deblurring)
256 . Object boundary expansion or contraction
257 .. Dilation or erosion (e.g., opening or closing)
258 .. Line thinning or thickening
259 ... Skeletonizing
260 . Image filter
261 .. Adaptive filter
262 .. Median filter